

CONFIDENTIAL

**CONFIDENTIAL**

CENTRAL INTELLIGENCE AGENCY

## REPORT

50X1-HUM

**INFORMATION FROM  
FOREIGN DOCUMENTS OR RADIO BROADCASTS**

CD NO.

COUNTRY	USSR
---------	------

DATE OF INFORMATION 1950

SUBJECT Economic - Coal mining, machinery

**HOW PUBLISHED** Monthly periodical

DATE DIST. 1 Aug 1950

WHERE  
PUBLISHED      Moscow

NO. OF PAGES 2

DATE  
PUBLISHED May 1950

SUPPLEMENT TO  
REPORT NO.

LANGUAGE Russian

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANING OF ESPIONAGE ACT 50 U. S. C., 31 AND 32, AS AMENDED. ITS TRANSMISSION OR THE REVELATION OF ITS CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW. REPRODUCTION OF THIS FORM IS PROHIBITED.

THIS IS UNEVALUATED INFORMATION

SOURCE                      Ugol', No 5, 1950.

NEW SOVIET CONVEYER FOR "DONBASS" COMBINE

V. N. Khorin  
A. D. Sukach

The "Donbass" combine could operate with considerably more efficiency if heavy specially designed conveyers were used, in place of the ST2-11 scraper conveyor, at the mine face. The ST2-11 can handle only 60 tons per hour which permits the combine to operate at a maximum of second speed (0.54 meters per minute). At third speed (0.81 meters per minute), the productivity of the combine is 65-80 tons per hour even in a very thin seam (0.8 meters). The ST2-11 is still more inadequate in a seam 1.2-1.4 meters thick, because even at second speed the combine has a productivity of 75-90 tons per hour when working a seam of this thickness.

The ST2-11 can transport for a distance of only 100 meters although mine faces longer than that are required if efficient use is to be made of the "Donbass" combine. Mine faces in the "Donbass" which use combines fall into the following length categories: up to 100 meters, 17.4 percent; 100-125 meters, 27.2 percent; 125-150 meters, 19.5 percent; 150-200 meters, 27.2 percent; over 200 meters, 8.7 percent. This means that 82.6 percent of the mine faces where combines operate are more than 100 meters long and two ST2-11 conveyers are required for each of these. For the 8.7 percent above 200 meters, three conveyers must be used.

The SK-30, a special heavy conveyer, was designed by the State Institute for Planning Coal Machinery to satisfy conditions at mine faces where combines operated. It has a productivity of 100 tons per hour and is 180 meters long. The following table shows its characteristics in comparison with three other scraper conveyers, the ST2-11, the SKR-11 and the STR-30.

**CONFIDENTIAL**

- 1 -

## CLASSIFICATION

CONFIDENTIAL

[illegible]

**CONFIDENTIAL**

CONFIDENTIAL

50X1-HUM

	<u>ST2-11</u>	<u>SKR-11</u>	<u>STR-30</u>	<u>SK-30</u>
Tons of coal per hour	60	60	70-100	100
Length of coal haul along a 10°-12° dip. meters	100	100	130	180
Speed of scraper chain, meters/second	0.4 0.525	0.4 0.525	0.34 0.51	0.51
Breaking load of scraper chain, kg	16,500	16,500	23,000	23,000
Side height of unit from ground, mm	252	265	197	220
Size and weight of units				
Upper chute (reshtak):				
Length, mm	2,560	2,530	1,420	1,470
Width, mm	524	574	700	735
Height, mm	161	169	95	219
Weight, kg	53.3	53.9	84.7	45.5
Lower chute:				
Length, mm	2,640	2,530	1,465	1,470
Width, mm	506	512	700	728
Height, mm	177	172	156	186
Weight, kg	50.24	51	73.6	40.8
Electric motor				
Type	MA-143-1/4		MA-144-2/4	
Capacity, kw	11.4		29	
Revolutions/min	1470		1480	
Operating voltage	220/380		220/380	

The SK-30 would make it possible to use only one conveyer at the majority of mine faces. Its great productivity would allow the combine to operate at a speed of 0.81-1.08 meters per minute. The existence of a side on the chutes on the side of the worked out area and the comparatively low height of the chutes create favorable conditions for loading coal onto the conveyer by the loader unit of the combine and guards against coal dropping into the worked out area. Its ability to work in reverse makes possible mechanized delivery of lumber at the mine face from a lower haulage drift. The comparatively light weight of the chutes assures facility and speed in transporting the conveyer.

Manufacture of an experimental consignment of SK-30 conveyers has been assigned to Svet Shakhtera Plant. The new conveyer will solve the problem of safe transport of coal at mine faces where combines are in operation and will considerably increase the efficiency of the "Donbass" combine.

- E N D -

- 2 -

CONFIDENTIAL

**CONFIDENTIAL**